



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,740	10/30/2003	Sivapackia Ganapathiappan	10010060-8	9060

7590 09/02/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

[REDACTED] EXAMINER

ZALUKAEVA, TATYANA

ART UNIT	PAPER NUMBER
	1713

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/697,740 Examiner Tatyana Zalukaeva	GANAPATHIAPPAN, SIVAPACKIA Art Unit 1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 September 2001.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 22 and 23 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 22 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5990202 A to Nguyen et al

Nguyen discloses an ink-jet ink for inkjet printing including a vehicle and a colorant, said colorant encapsulated by or associated with a primer core/shell polymer to form a primer/colorant combination, and said primer/colorant combination, upon printing, encapsulated by a durable core/shell polymer (claim 1)

The polymer is obtained by the following process: In an 250 cm.sup.3 glass jar were added 5.0 g of carbon black (Vulcan XR-72), 25.0 g of a durable core/shell polymer (S1) employed in the practice of the present invention comprising (HA).sub.40 (MMA).sub.40 (PEGAc(404)).sub.20 (10 wt % solid), 10 g diethylene glycol (as non-penetrating humectant), 10 g N-methyl pyrrolidone (NMP, as penetrating humectant), 0.02 g of fluoro surfactant (Fluorad 99; 3M Products). The components were milled together by a paint shaker using 2 mm zirconium beads for 2 hrs. After being milled, the system was diluted with water to achieve a final ink solution of 5 wt % solid.

Table 1 provides for particle sizes, which have values within the claimed range. Because of the nature of product-by process claims, the Examiner cannot ordinarily focus on the precise difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See In re Marosi, 218 USPQ 289, 292-293 (CAFC 1983).

See also footnote 11 O.G. Notice 1162 59-61, wherein a 35 USC 102/103 rejection is authorized in the case of product-by-process claims because the exact identity of the claimed product or the prior art product cannot be determined by the Examiner.

The patentability of the product is based on the product per se, and may be anticipated or obvious over the product, which although prepared in a different manner, appeared to be the same (prima facie) as the claimed product In re Thorpe, 227 USPQ 964 (CAFC 1985). See also In re Brown, 173 USPQ 685 (CCPA 1972), the Court of Customs and Patent Appeals (CCPA) explicitly approved the 102/103 rejection of a

product-by-process claim over a reference which showed a product which appeared to be identical or only slightly different from the claimed product.

With regard to polydispersity the rejection is made in the sense of Fitzgerald (205 USPQ 594). (CAFC):

It is the base presumption that the properties governing the claimed composition, if not taught, may be very well met by the composition of Ngyuen, since the polymers of Ngyuen are essentially the same and made in essentially the same manner as applicants' polymer. The onus to show that this, in fact, is not the case is shifted to applicants.

4. Claim 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative as obvious over Winnik et al (U.S. 4,795,794).

Winnik discloses self-colored polymer particles prepared in accordance with the present invention are useful as liquid developer compositions. These compositions are comprised of nonaqueous solutions of the self-colored polymer particles illustrated herein dispersed in a suitable vehicle, such as Isopar G; and a charge control agent inclusive of a metal soap. Specific examples of liquid ink developer compositions, therefore, include those comprised of a dispersion of colored particles prepared in accordance with the process of the present invention, present in Isopar in an amount of from about 0.3 to about 2 weight percent, which Isopar further includes from about 0.05 to about 0.5 weight percent of a charge control agent such as zirconium octoate (col.7, lines 50-60).

Winnik discloses a method of making amphiphatic particles by dispersion polymerization process for affecting the preparation of particles which comprises dissolving in a suitable solvent a mixture of at least two first monomer components including at least one second monomer having covalently attached thereto a dye moiety, subsequently adding to the reaction mixture a polymerization initiator, thereafter affecting polymerization of the reaction mixture by heating, and separating the product particles therefrom (abstract). Average particle size is 0.1-20 micron (0.1 micron=100nm) (col.6, lines 40,41). The resulting mixture from polymerization, i.e. the product particles are separated from the reaction mixture by usual known techniques, including filtration (col.4, lines 34). The same rationale about the product-by-process claims as discussed above in incorporated herein in its entirety.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ngyuen et al in view of US 20030032716 A1

Ngyuen does not disclose the method of making a binder. Disclosed in White is a pigment dispersion comprising pigment, an aqueous carrier selected from water and a mixture of water and at least one organic solvent, and a pigment dispersant is described. The pigment dispersant is prepared by controlled radical polymerization, e.g., atom transfer radical polymerization, and has polymer chain structure represented by the following general formula I,

$$\Phi-(G)_p-(E)_q-T$$

Art Unit: 1713

Pigment dispersions are typically prepared by mixing dry pigment with a pigment dispersant in the presence of a carrier medium, e.g., an aqueous carrier medium.[0002], pigment dispersant has a polydispersity index of less than 1.8 (claim 12). Because of the similarity of both products and their similar intended uses and properties, and motivated by the suggestion of Nguyen that the commonly known and available methods of polymerization can be utilized, one skilled in the art would have found obvious to utilize ATRP of White in the process of Ngyuen with the reasonable expectation of success.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winnik et al in view of US 20030032716 A1 for the same reasons as discussed in paragraph 5 above.

7. other prior art references sited in PTOL-892 show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva
Primary Examiner
Art Unit 1713

August 30, 2004

